

cylindric, 10–20 mm. long, red-purple, their bud scales tan, with irregularly lacerate margins; ovulate catkins ellipsoid, 15–20 mm. long, 10–12 mm. wide, dark blue-purple; cone ovoid, 5–8 cm. long, nut brown, scales about 160 to 190 in number, not reflexed on dehiscence, apophysis dorsal, low pyramidal, umbo tan, with a slender slightly recurved prickle; seed 8 mm. long, 5 mm. wide, 3 mm. thick, free portion of wing rhombic-cuneate, 1.5 to 2 times the seed.

Specimens examined. Sierra Nevada, east side of Mount Rose, Washoe County, Nevada: altitude 7500 feet, Sept. 9, 1938, *Mason 12078*; altitude 7000 feet, Aug. 8, 1939, *Mason 12228*; altitude 8100 feet, Aug. 6, 1940, *Mason 12370* (type, Herbarium of the University of California, nos. 692993, ovulate, and 692994, staminate); altitude 8500 feet, July 18, 1939, *Stockwell and Cumming, 1455*; *Cumming*, Nov., 1941 (cones only).

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REVIEW

The Botanical Collections of Wilhelm N. Suksdorf, 1850–1932. By WILLIAM A. WEBER. Research Studies of the State College of Washington, Vol. XII, No. 2. Pp. 51–121. Pl. 1, 2. June, 1944.

"And this," said my guide, pausing for emphasis, "is the Suksdorf collection!" Dozens of bundles of specimens (wrapped and unwrapped, labeled and unlabeled) were piled on top of old wooden herbarium cases, on chairs, on and under tables, and on the floor. A thick coating of black dust covered them and the dingy basement room. This was the Suksdorf collection in 1934. Inside the packages, however, the specimens were still in the beautiful condition they had been left by their meticulous collector. That insects had not played havoc with them was partially due to the foresight of Dr. Harry F. Clements, then plant physiologist at the State College, who had put them all through a drying oven the previous year. The bundles were arranged in accordance with a variety of systems or with no system at all, and most of the external labels had become misplaced or lost. In the absence of field books, diaries, and correspondence, the collector's symbols (in German script) defied translation.

However, the requests of specialists for certain materials were importunate, and were met as fully and promptly as possible. Preparing a loan of any group necessitated going through every bundle. In the absence of herbarium assistants, the "curator" and his graduate fellows (Dr. Reed C. Rollins and Mr. Louis O. Dillon) and a few willing undergraduate students spent long hours in tiresome searching. Despite these difficulties, a number of small groups and a few large ones (*Carex*, *Plectritis*, *Castilleja*,

Arnica, the Cruciferae, the Saxifragaceae) were made available for general use. By 1937 the entire collection had been arranged systematically, fumigated repeatedly, and stored in as safe a place as could be found.

With this background in mind, it is easier to appreciate properly the excellent work Mr. Weber has done with the collection, culminating in this paper devoted to Wilhelm N. Suksdorf and his herbarium. No other western collector, to my knowledge, has had his travels, activities, and accomplishments so carefully and appreciatively documented. The study consists of six parts: an introduction, a biographical sketch, an itinerary, a list of described entities based upon the Suksdorf collection, a gazetteer, and a list of Suksdorf's few scientific writings. Two portraits are reproduced, that of the collector in middle age being a particularly fine addition to our record of him.

Born near Kiel in Germany and defeated by ill health in his efforts to obtain an education in the United States, Suksdorf was handicapped by a reluctance to use the English language, which largely cut him off from communication with his contemporaries. He is remembered chiefly for the materials which he provided for Asa Gray and Sereno Watson, and for many overseas botanists. The biographer appears to share Suksdorf's conviction that he was not fully appreciated by the botanical world. That he was among the best of botanical collectors cannot be questioned, but that he was a potentially great botanist can. His longest publication, dealing with *Amsinckia* (in which he described 201 "new species") does credit to his powers of observation but not to his taxonomic judgment. The species described by others from Suksdorf's collections have fared much better than those named by himself.

Mr. Weber's study properly concentrates on Suksdorf's itinerary of sixty years, and on a careful gazetteer of the places he visited in Washington, Oregon, California, and Montana. This is particularly useful in the case of Suksdorf because of his fondness of unusual (often Indian) geographical names, and his practice of freely coining German place names when no others were available. Suksdorf's specimens, collected in this area, were prepared in large sets and were widely distributed; they contributed much to Asa Gray's and Sereno Watson's knowledge of the western floras and are still useful tools to systematists.

The present paper is a model of its kind. It is to be hoped that its publication will stimulate the preparation of accounts of the activities and movements of other distinguished collectors in the Pacific Northwest. The collecting localities of others, from Douglas and Nuttall to the Howell brothers and Cusick, need similar careful study and documentation. The floras of the area are so diverse that a precise determination of past collecting sites would greatly facilitate our understanding of the distribution of many groups of plants.—LINCOLN CONSTANCE, Department of Botany, University of California, Berkeley.